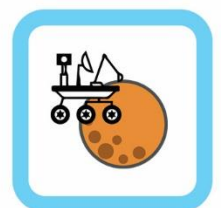
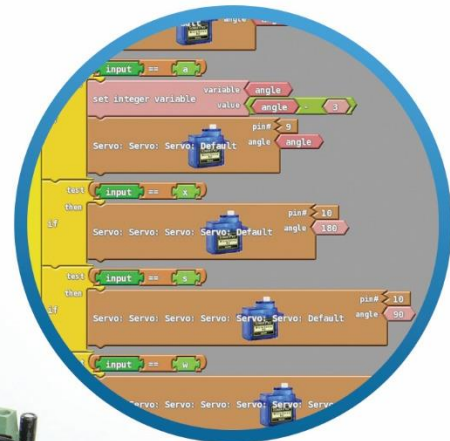
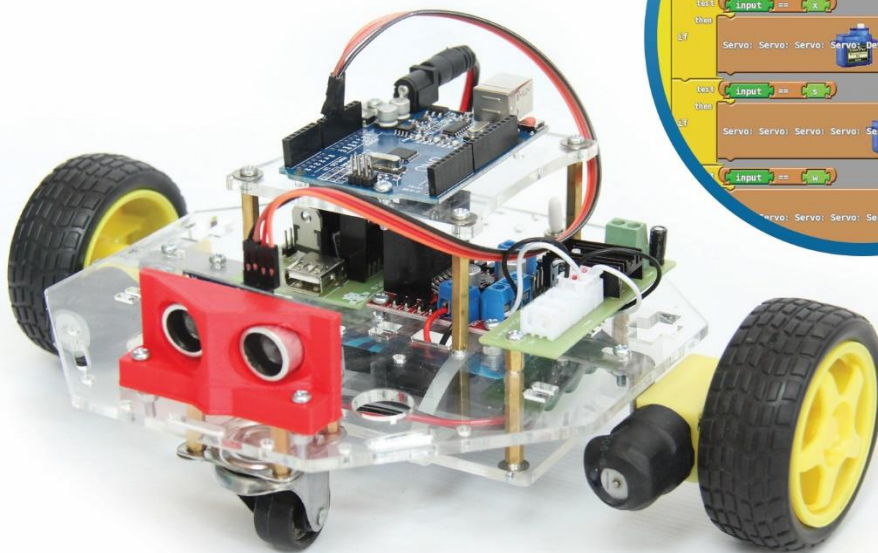




LearnOBots
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CODI BOT

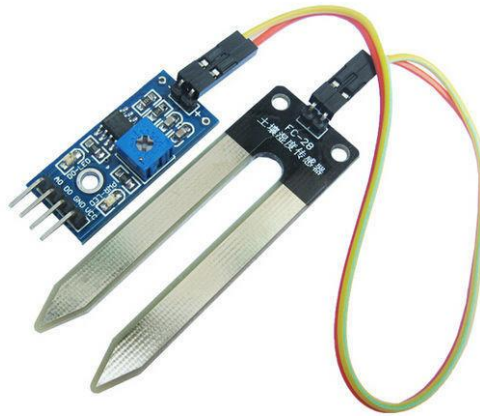
Astronaut CODI



THE PERFECT COMPANION TO LEARN
PROGRAMMING, ROBOTICS AND ELECTRONICS

Astronaut CODI Manual for CODIBOT

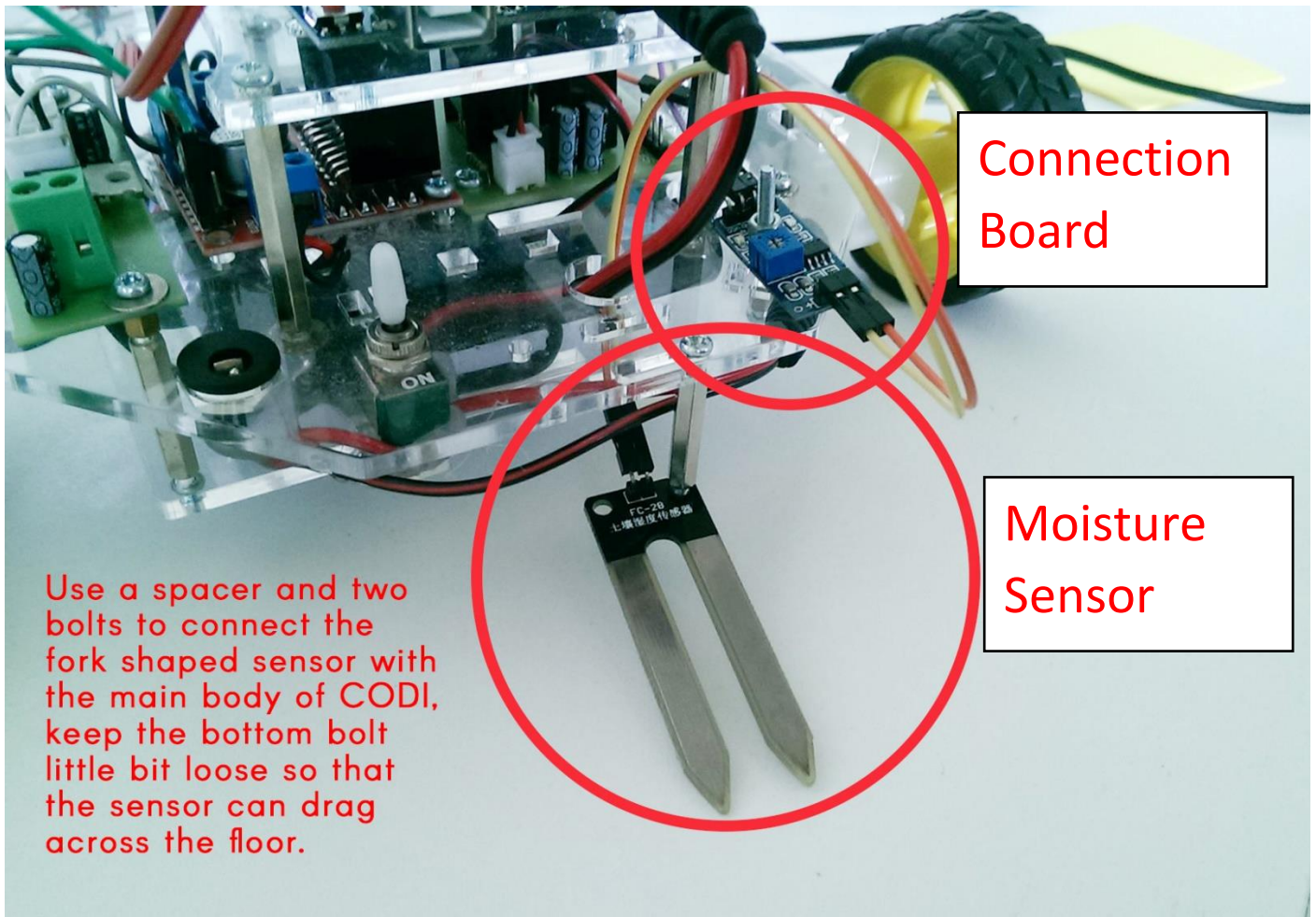
In this activity, we will equip CODI with a moisture sensor and send him to mars to search for water. Once CODI detects the water it will send a signal to Earth.



Moisture Sensor

STEP 1:

Mount the Sensor on the Backside of CODI as shown in the picture. Keep the Sensor a bit loose from one end so that it can touch the ground and detect water. Attach the connection board on the body as shown.



STEP 2:

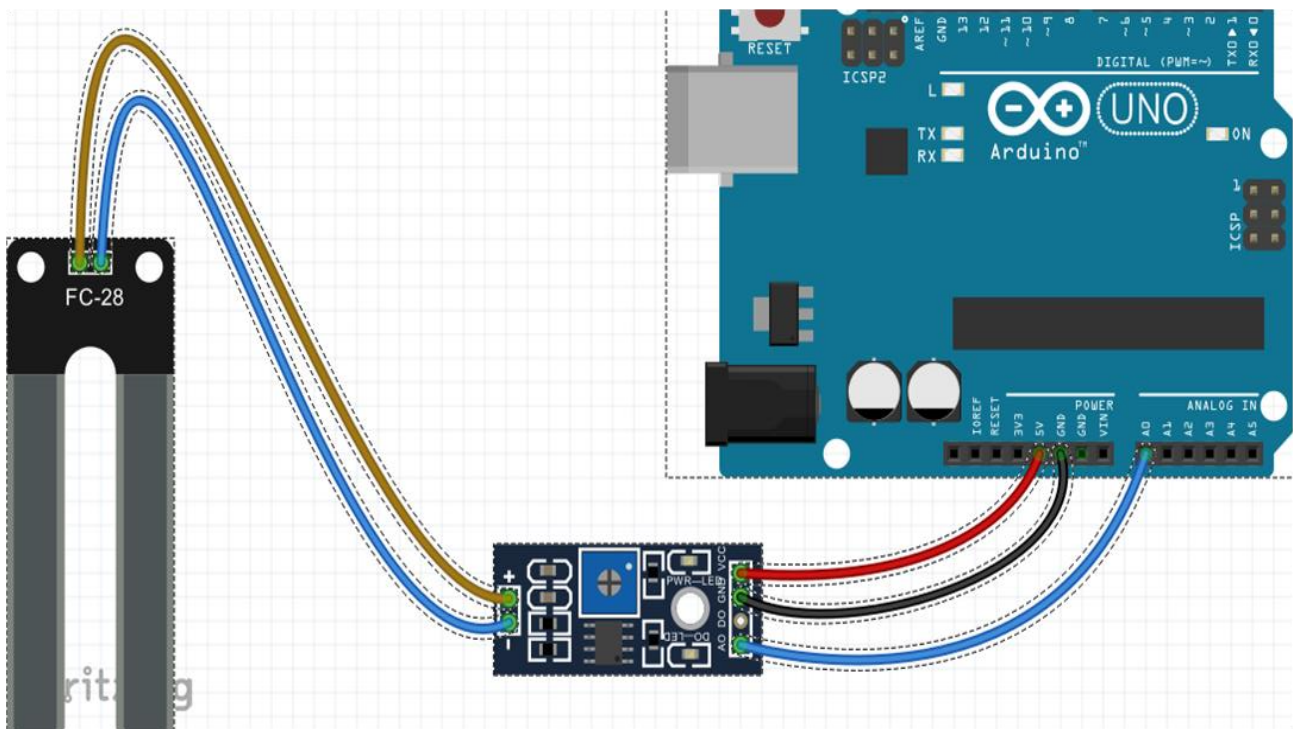
Connect the motors with the Arduino. (Refer the getting started manual)

STEP 3:

Use the connecting wires to connect the moisture sensor with Arduino. Make connection between the Sensor and Connection Board and then between Connection Board and Arduino.

The Connection board has 6 pins, Two pins (+, -) on one side, connect them to the sensor, Four pins (AO, DO, GND, Vcc) on the other side, connect them to Arduino.

Connection Board Pins	Arduino
DO	Pin 3
Vcc	5V
GND	GND



STEP 4:

Connect the CODI with the computer and startup ArduBlock via Arduino. (Refer Getting started manual for setup and installation).

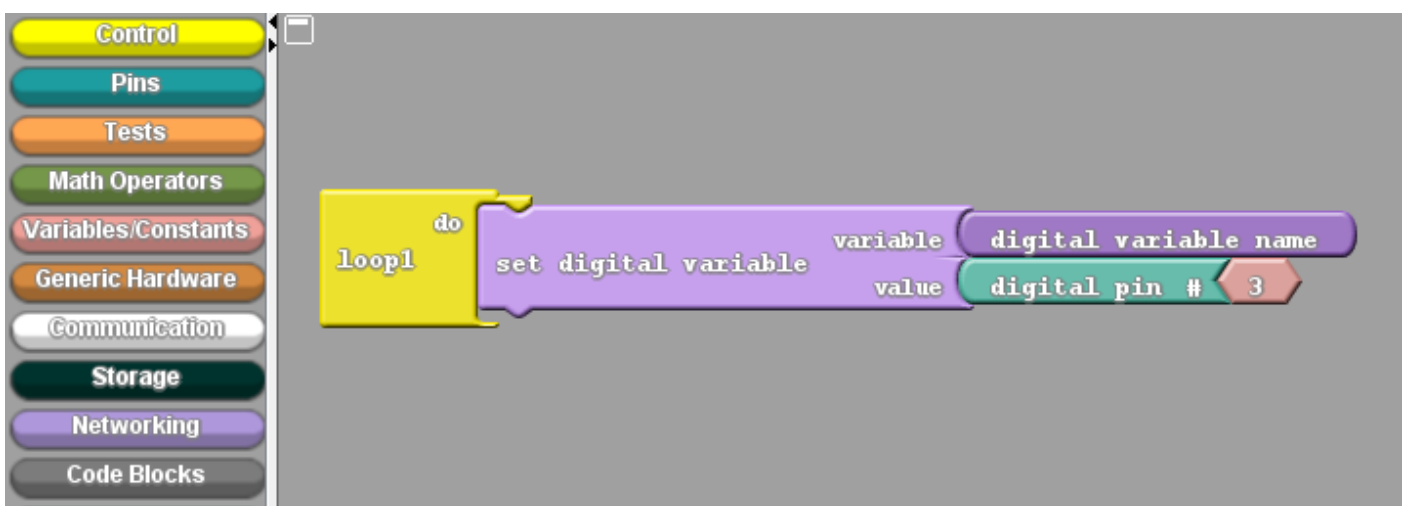
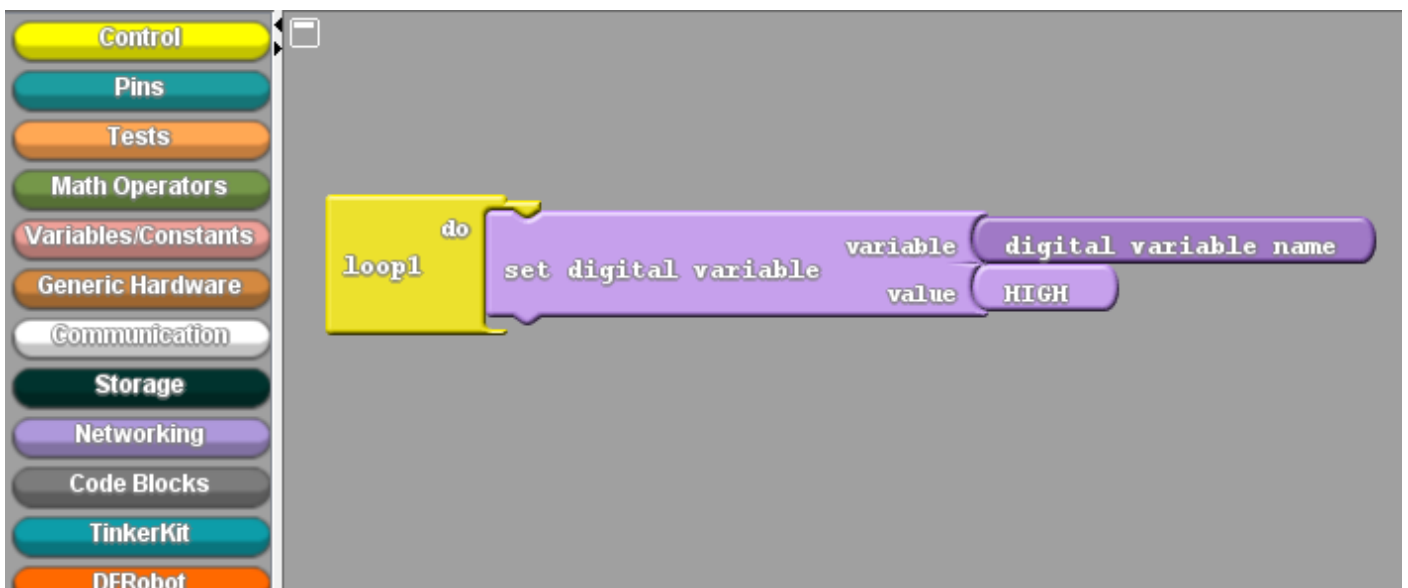
STEP 5:

Make the Code as follows:

1. Select a do loop from control panel



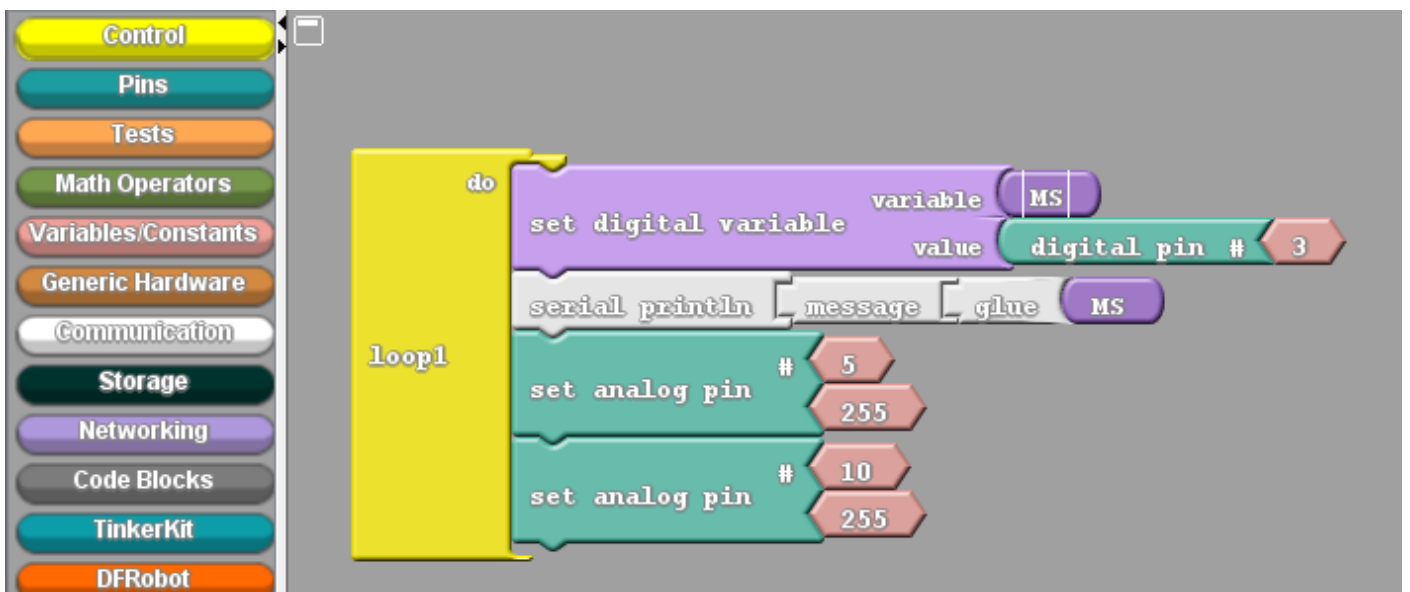
2. Select a set digital variable from the Variables/Constants Tab. Change the digital variable name to MS. Snap out the HIGH value and replace it with a digital pin, change the pin # to 3.



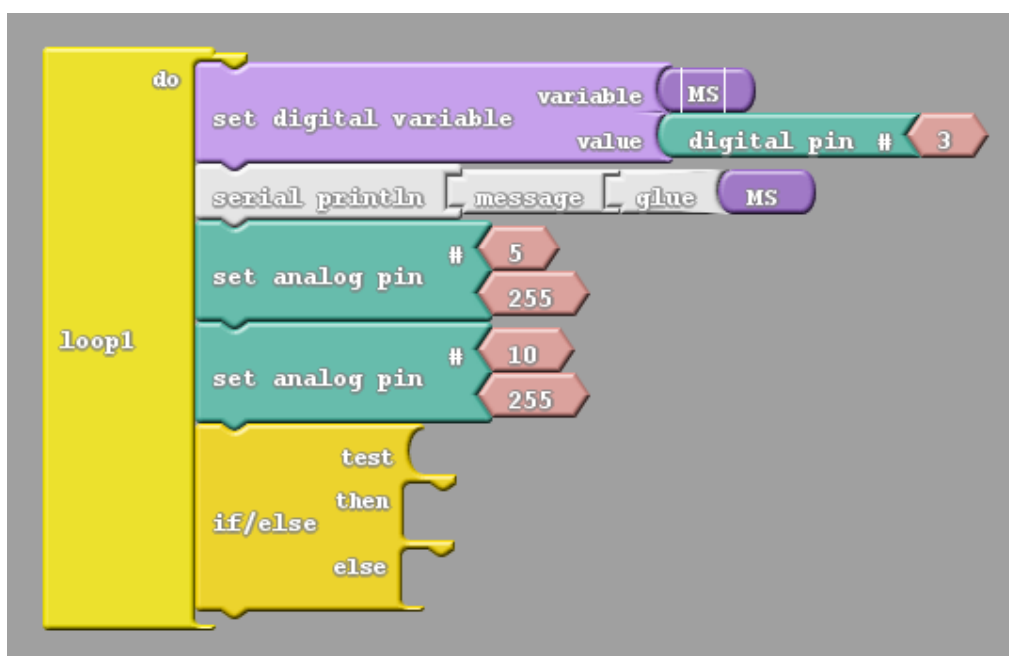
3. From the Communication Tab select a serial printIN panel and snap it as shown. Insert a glue panel and clone the MS panel from above and snap it as shown.



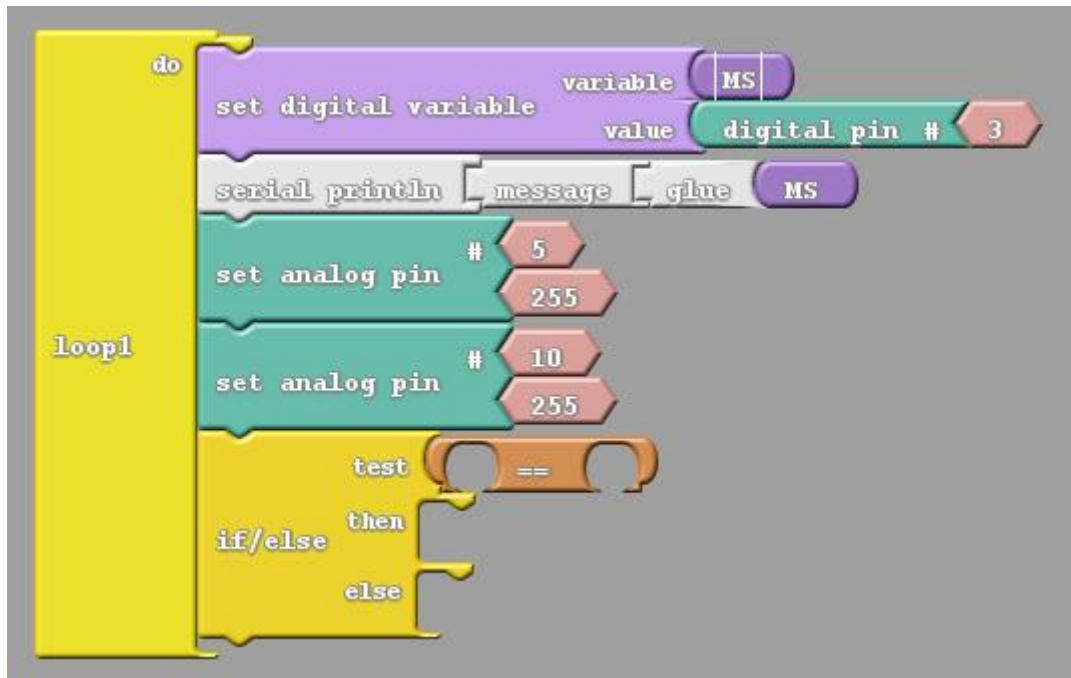
4. Insert two set analog pin panels and change their values as shown.



5. Select and if/else panel and snap it below the set analog pin panels as shown.



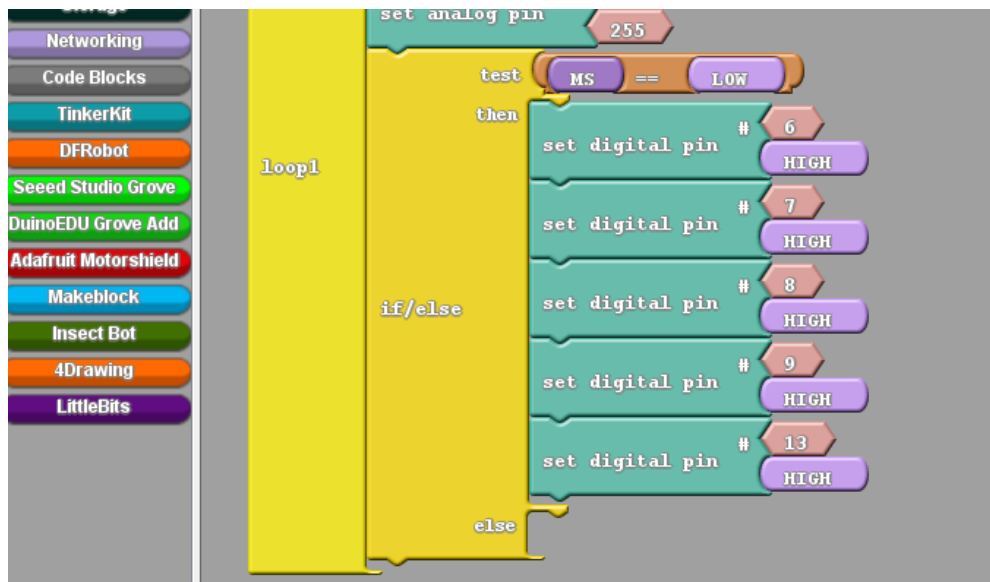
6. From the test tab select a “==” panel and inset it in the test slot of if/else panel as shown.



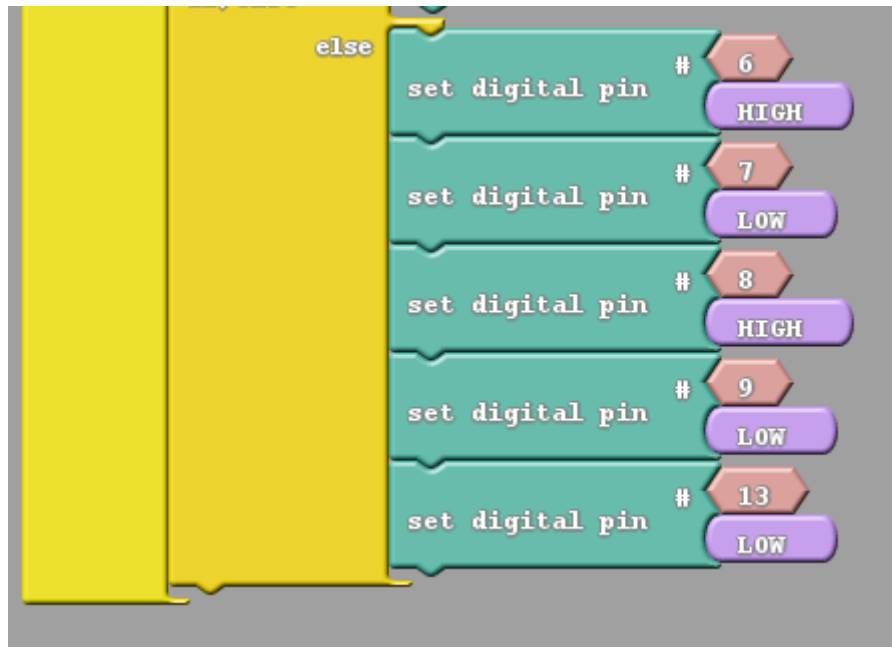
7. Clone the MS panel from above, select the LOW panel from variable and constants and insert them as shown.



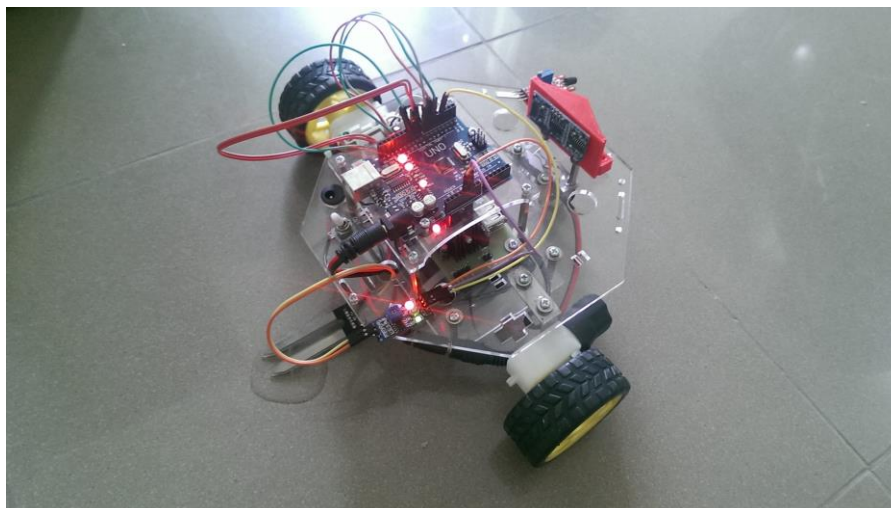
8. Insert Five set digital pin panels in the if slot of the loop and change their values as shown.



9. Clone these five set digital panels and insert the clones in the else panel. Set their values as shown.



10. Upload your code to the CODIBOT, disconnect from the computer.
11. Before turning on the CODI, prepare the surface of mars your self. Pour some water on the ground and put CODI near it, facing the puddle, turn on the switch, now your CODI will run forward and will stop and signal you when it detects water.



12. Hurray! you did it. Have fun with CODI and experiment with its coding and add-ons for endless fun.